May 1, 1873.

Meeting of the Conchological Section.

Dr. Ruschenberger, Director, in the chair.

Mr. Tryon called attention to an interesting series of land and fluviatile Mollusca from Utah, presented this evening.

These shells were collected by the Wheeler Exploring Expedition, acting under authority of the U. S. Engineer Office at Washington.

The specimens of *Helix strigosa*, Gould, exhibit every variation of form from the typical shells with depressed rounded whorls and smooth surface, to those with several revolving raised lines and a carinated periphery; in the latter condition they are identical with *H. Hemphillii*, Newcomb (Amer. Journ. Conch. v. 165, 1869, "White Pine Mining District"). In others, again, the raised lines are more numerous and sufficiently prominent to be called ribs, and the periphery is not carinated; in this state they are *H. Haydeni*, Gabb (Am. Journ. Conch. v. 24, 1869).

The latter species has been heretofore considered to belong to a new generic type for America, being the only species having revolving ribs: its nearest relationship was apparently with a small group of Madeiran Helices. The form of the shell, its external appearance, and the closely approaching extremities of the labrum, connected by a callus upon the parietal wall, reminds one of *Cyclostoma;* but no opercula were obtained with the fifty odd specimens in semi-fossilized condition, collected by Prof. F. V. Hayden, in Webber Cañon, Utah.

It is extraordinary that any species should be found to vary so much as does *H. strigosa*, in those characters which have heretofore been regarded as most persistent and distinctive. It is much easier to imagine the growth lines developed into ribs, than a form in which the growth lines are crossed by revolving ribs. In *H. Idahoensis*, Newcomb (*Ibid.* ii. 1, 1866), we find the surface raised into sharp ribs parallel with the lines of accretion, and, as in all other respects, this species does not appear to differ from *strigosa;* it is very probable that *Idahoensis* will also prove to be a variety of this protean species.

Included in the collection are two specimens of the genus *Tryonia*, Stimpson. This curious little genus was heretofore considered to be restricted to the Colorado Desert of southern California, where, in a fossilized condition, it exists in such numbers as frequently to cover the surface of the ground. Two species have been described, viz., the type *T.* (*Melania*) *exigua*, Conrad, of which *Melania protea*, Gould, is a synonym, and *Tryonia clathrata*, Stimpson. The two Utah specimens are probably *T. exigua*.

The genus *Tryonia* is included in a group of very small species of Amnicolidæ, having the whorls ornamented by ribs, nodules, or spines; it includes the genera

Paludestrina, Orb., 1841. West Indies and S. America.

Pyrgula, Crist and Jan. 1832. Europe.[1]

Potamopyrgus, Stimpson, 1865. New Zealand.

In addition to the above, the collection includes *Succinea lineata*, W. G. Binney, *Limnæa palustris*, Müll., *L. stagnalis*, Linn., and *L. desidiosa*, Say, *Physa elliptica*, Lea, and *Planorbis trivolvis*, Say; the latter very large specimens with the margin of the aperture expanded like those from the St. Lawrence River, described by Mr. Whiteaves as *Pl. macrostomus*.

[1] Mr. John Wolf has described *Pyrgula scalariformis*, from the post pliocene near Tazewell, Illinois River. Other minute species may be detected hereafter, when our rivers are more carefully explored, as in France a number of new species have rewarded the minute research of recent collectors.